Mathematics Toolkit: Grade 3 Objective 6.A.2.a

Standard 6.0 Knowledge of Number Relationships and Computation/Arithmetic

Topic A. Knowledge of Number and Place Value

Indicator 2. Apply knowledge of fractions

Objective a. Read, write, and represent fractions as parts of a single region using symbols, words, and models

Assessment Limits:

Use fractions with denominators of 2, 3, or 4

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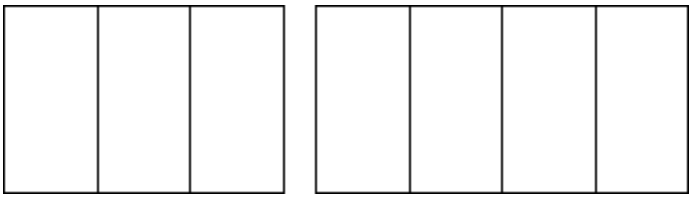
Sample Item #1 - Brief Constructed Response (BCR) Item

Mathematics Grade 3 Objective 6.A.2.a

Sharice is painting her bedroom. She wants to paint $\frac{3}{4}$ of one of the walls green.

Step A

Look at the pictures below. Chose and shade the model which will show $\frac{3}{4}$.



Step B

Explain why your shaded picture represents $\frac{3}{4}$. Use what you know about fractions in your explanation. Use words and/or numbers in your explanation.

Correct Answer:
Step A

Rubric - Brief Constructed Response (BCR)

Score 2
The response demonstrates a complete understanding and analysis of a problem.

- Application of a reasonable strategy in the context of the problem is indicated.
- Explanation[1] of and/or justification[2] for the mathematical process(es) used to solve a problem is clear, developed, and logical.
- Connections and/or extensions made within mathematics or outside of mathematics are clear.
- Supportive information and/or numbers are provided as appropriate. [3]

Score 1
The response demonstrates a minimal understanding and analysis of a problem.

- Partial application of a strategy in the context of the problem is indicated.
- Explanation[1] of and/or justification[2] for the mathematical process(es) used to solve a problem is partially developed, logically flawed, or missing.
- Connections and/or extensions made within mathematics or outside of mathematics are partial or overly general, or flawed.
- Supportive information and/or numbers may or may not be provided as appropriate.[3]

Score 0
The response is completely incorrect, irrelevant to the problem, or missing.[4]

Notes:

[1] Explanation refers to students' ability to communicate how they arrived at the solution for an item using the language of mathematics.

[2] Justification refers to students' ability to support the reasoning used to solve a problem, or to demonstrate why the solution is correct using mathematical concepts and principles.

[3] Students need to complete rubric criteria for *explanation, justification, connections* and/or *extensions* as cued for in a given problem.

[4] Merely an exact copy or paraphrase of the problem will receive a score of "0".

Rubric Document Date: August 2003